Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing Figure 3 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet. The drawing figure 3 has been amended. Appended to this amendment is an annotated copy of the previous drawing sheet which has been marked to show changes presented in the replacement sheet of the drawing.

The specific change which has been made to Figure 3 is to delete the reference numeral 39.

REMARKS

 $\nabla f = \sum_{i=1}^{n} f_i = \sum_{i$

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1 and 5 have been amended. New claims 18-19 have been added. No new matter has been added.

After the above mentioned amendments, claims 1-19 are pending, of which claims 6-13 and 15-17 have been withdrawn from consideration.

Specification

The specification was objected to for informalities. Specifically, the Office Action indicated that the reference numeral 39 in Figure 3 is not mentioned in the specification. Figure 3 has been amended to delete the reference numeral 39, thus overcoming the objection.

Rejection under 35 U.S.C. § 102

Claims 1-5 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,229,656 to Omura ("Omura"). Applicant respectfully traverses this rejection for at least the following reasons.

Independent claim 1 recites, inter alia, that the "light receiving surface of the horizontal synchronization detecting means is tilted <u>in the vertical scanning direction</u> so as to output a horizontal synchronized signal when the light beams come to the same position on the surface to be scanned in the horizontal scanning direction." (emphasis added). Omura fails to disclose or suggest at least this feature of claim 1, or its attendant advantages.

While Omura discloses a horizontal synchronization detector 23 in Figure 3, nowhere does Omura disclose that the horizontal synchronization detector 23 is tilted <u>in a vertical scanning direction</u> so as to output a horizontal synchronized signal when the light beams come to the same position on the surface to be scanned in the horizontal scanning direction, as recited in claim 1. The detector 23 in Figure 3 of Omura is not tilted in a vertical scanning

direction, but is merely line symmetrical with respect to the image surface 58 viewed from the surface of the mirror 25. Thus, Omura fails to anticipate claim 1.

Moreover, Omura, which fails to suggest the orientation of the light receiving surface of the horizontal synchronization detecting means as recited in the claims, fails to suggest its attendant advantages. In the Omura system, even if the optical path length of the light beams are aligned at a pre-deflection state, but the surface to be scanned is inclined, the optical path length to the scanned surface varies. The present invention of claim 1, by orienting the light receiving surface of the horizontal synchronization detecting means as recited, corrects for this variance in the optical path length. This advantage is not suggested by Omura.

Independent claim 19 recites "wherein a light receiving surface of the horizontal synchronization sensor is tilted in the vertical scanning direction so as to output a horizontal synchronized signal when the light beams come to the same position on the surface to be scanned in the horizontal scanning direction", and is thus patentable over Omura for reasons analogous to claim 1.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of

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papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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Annotated Sheet
Title: OPTICAL MULTI-BEAM
SCANNING DEVICE AND IMAGE
FORMING APPARATUS
Inventor(s): Takashi SHIRAISHI
Appl. No.: 10/810,707

